MASSACHUSETTS
GENERAL HOSPITAL

MGH ERAC (Enhanced Recovery After C-Section)
Updated 07.29.2021

ANESTHESIA BUNDLE

Element	Definition
Preoperative Testing Surgeons, residents, fellows Anesthesia	• In accordance with hospital policy and ACOG guidelines, patients with high degree of medical or anesthetic complexity as assessed by the surgeon at the preoperative visit should be referred to OB Anesthesia for preoperative evaluation per institutional best practice at least 30 days prior to surgery to facilitate preoperative workup. • In accordance with hospital policy preoperative CBC should be performed within 30 days • Valid type and screen for all scheduled Cesarean deliveries • Routine preoperative chest x-rays and coagulation studies are not indicated • Diabetic patients should have a preop fingerstick on day of surgery
Preoperative Medication Management Surgeons, residents, fellows Anesthesia	• Patients on long-acting narcotic therapy (e.g. OxyContin) should take their extended-release narcotic on the day of surgery • Anticoagulation management will be at the discretion of the primary surgeon
Preemptive Analgesia Surgeons, residents, fellows OB Nursing Anesthesia	• Patients should receive 975mg to 1,000mg of acetaminophen orally prior to surgery
Premedication OB Nursing Anesthesia	• Routine premedication with midazolam is discouraged in patients
Intraoperative Antiemetic Prophylaxis Anesthesia	• Unless contraindicated, patients should receive perioperative antiemetic prophylaxis with at least <u>two</u> of the following medications: 1. Zofran 4mg IV 2. Dexamethasone 4mg IV 3. Metoclopramide 10mg IV 4. Scopolamine patch
Postoperative Antiemetic Use Surgeons, residents, fellows Anesthesia OB Nursing Floor Nursing	• The following medications are acceptable for rescue antiemetic use: 1. Zofran 1-4mg IV 2. Haloperidol 1mg IV 3. Metoclopramide 5-10mg IV 4. Promethazine 6.25-12.5mg IM • The first line rescue antiemetic given in the post anesthesia recovery period should be a drug not given pre- or intraoperatively
Intraoperative Temp Management Anesthesia	• Patient should be actively warmed using a warming device (full underbody convection blanket placed preoperatively on the operating room bed)
Postoperative Analgesia Surgeons, residents, fellows Anesthesia OB Nursing Floor Nursing	Patients should receive <u>scheduled</u> non-narcotic therapy: 1. Ketorolac 15- 30mg q 6hrs postop X 24 hrs followed by 600mg Motrin q 6hrs X 48hrs then PRN. o If ketorolac is given in the operating room, then the first dose of post-operative ketorolac or Motrin should be no sooner than six hours after ketorolac. 2. Ibuprofen is 600mg PO (don't see it on orders for post op analgesia) 3. Acetaminophen is 975 q 6 hr for 72 hrs. then PRN. Narcotic therapy should be minimized: 1. Oxycodone 5-10mg PO is the preferred first line narcotic agents; IV narcotic therapy should be used for rescue use only for patients not tolerating oral agents 2. For patients receiving IV narcotic therapy, PCA is preferred rather than intermittent IV bolus dosing

SURGICAL BUNDLE

Element	Definition
Preoperative screening Surgeons, residents, fellows OB clinic nursing	Preoperative screening should include: 1. Anemia screening 2. Obesity 3. Hypertension 4. Diabetes 5. Tobacco and alcohol use screening and cessation counseling If present, anemia, obesity, hypertension, diabetes, tobacco, and alcohol use should be managed.
Patient Education Surgeons, residents, fellows OB Gyn/clinic nursing PPE/PATA	Educational material will be provided by the surgeon's office at the time of booking covering: 1. Preoperative discharge preparation including dietary recommendations, home preparation, physical activity, and alcohol/tobacco abstinence 2. Preoperative hydration and bowel preparation regimen 3. Day of surgery workflow / expectations 4. ERAS pain control methodology, including epidural analgesia 5. Routine postoperative care and expectations
Preoperative Nutritional Supplement Surgeons, residents, fellows OB Gyn/clinic nursing	• All patients should receive a preoperative nutritional supplement drink prior to surgery. • Patients should be given instructions to finish the carbohydrate drink 2 hours prior to induction of anesthesia • Acceptable pre-op nutritional supplement drinks: 1. A carbohydrate drink containing at least 45gm of complex carbohydrates in at least 400cc of isotonic fluid is strongly recommended (e.g. 24oz of Clearfast or an equivalent preparation, such as 2 bottles of 10 oz. Ensure Pre-Surgery Clear). 2. If above options are unavailable, up to 20oz of Gatorade “Thirst Quencher” or other complex carbohydrate containing solution is an acceptable alternative.
Preoperative Antibacterial Cleansing Surgeons, residents, fellows OB Gyn/clinic nursing	• Shower/bathe with liquid chlorhexidine soap for 2 days prior and on the morning of surgery per institutional best practice. • Vaginal prep if indicated.
Maintenance of Normothermia Surgeons, residents, fellows Anesthesia OR Nursing	• Actively warm before and throughout surgery to achieve target temperature of 36° C using one or more of the following: 1. Room temperature at ≥70° F until patient prepped and draped 2. Fluid warming device 3. Forced warm air under-body or over-body device
Intraoperative Skin Prep Surgeons, residents, fellows OR Nursing	• Acceptable skin preps: 1. Chloroprep is the preferred skin prep 2. Duraprep is an acceptable substitute 3. Prep must be allowed to air-dry (minimum 3 minutes) before draping and incision 4. Exclusive iodine-only solutions are <u>not</u> acceptable except in emergent cases 5. Vaginal prep, if indicated, can be an iodine solution
Neonatal Care Surgeons, residents, fellows OR Nursing	• Delayed cord clamping per policy. • Skin-to-skin contact with mother if tolerated.
Optimized Postoperative Fluid Management Surgeons, residents, fellows Anesthesia OB Nursing Floor Nursing	• Initial postoperative fluid orders: 125mL/hr, discontinue after 6 hours or once PO intake > 500 mL

Early Postoperative Diet Advancement Surgeons, residents, fellows OB Nursing Floor Nursing	• Encourage clear liquids once patient is awake in PACU • Patient should be ordered for at minimum a clear liquid diet postoperatively; regular diet may be ordered at surgeon's discretion • Consider advancing diet to regular 2 hrs following delivery.
Early Postoperative Mobilization Surgeons, residents, fellows OB Nursing Floor Nursing	• The following activity orders should be placed for all ERAS patients: 1. Patients should be sitting at the side of the bed with a goal of OOB to chair at the latest 8 hours postoperatively. Patients may ambulate as tolerated starting immediately postoperatively. 2. Patients should be out of bed as much as tolerated with goal by POD#1 to be OOB for all meals and at least 8h per day. 3. On Post-Op day #1 and thereafter: Ambulate in hallway at least 3 times daily • Expectations regarding early postoperative mobilization will be clearly conveyed to patients with patient education bundle.
Early Urinary Catheter Removal Surgeons, residents, fellows OB Nursing Floor Nursing	Urinary catheters should follow nurse driven best practices for indwelling urinary catheter removal
DVT prophylaxis Surgeons, residents, fellows OB Nursing OR Nursing Floor Nursing	• Per departmental guidelines, while epidural catheters are in place, DVT prophylaxis should consist of subcutaneous heparin. • After epidural catheter removal or for patients without epidurals, patients should receive DVT prophylaxis with enoxaparin or heparin per institutional best practice.
Post-Procedure Meds: Surgeons, residents, fellows OB Nursing Floor Nursing	Pain: • Ketorolac 15-30mg q 6 hr postop X 24 hrs followed by 600mg Motrin q 6hrs X 48hrs then PRN. • Ibuprofen is 600mg PO • Acetaminophen is 975 q 6 hr for 72 hrs. then PRN. Nausea: • Zofran is 4mg q 6hr PRN • Metoclopramide is 10Mg IVP q 6hr PRN